

CRITICAL INCIDENTS IN PHYSICAL EDUCATION

ACIDENTES CRÍTICOS EM EDUCAÇÃO FÍSICA

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ABSTRACT

Evaluate the student's satisfaction in Physical Education (PE) classes can contribute to help teachers in developing strategies to better planning and get students more motivated. The aim of this study is to describe what students' value most and why in a PE class. It was used a qualitative and descriptive approach of the critical incidents in a PE classroom interviewing 278 Portuguese students. The results reveal in the satisfaction striking moments, playing and compete, getting individually and collective success in a satisfactory class climate. The less welcome striking moments were a mixture of playing, compete and failure. The warmup and negative class climate also were reported as not very gratifying. The fun moments reported were personal realization, pleasure and sharing. The teacher appreciation reveals pedagogical interactions, specific knowledge and personal conduct. The students like PE classes. Planning by the PE teacher should maximize opportunities of enjoyable situations by the students, in order to improve their motivation.

Keywords: Satisfaction, Motivation, Evaluation, Important moments.

RESUMO

Avaliar a satisfação do aluno nas aulas de Educação Física (EF) pode contribuir para ajudar os professores no desenvolvimento de estratégias para melhor planear e motivar os alunos. O objetivo deste estudo é descrever o que os alunos valorizam e porquê numa aula de EF. Utilizou-se uma abordagem qualitativa e descritiva dos incidentes críticos numa aula de EF entrevistando 278 alunos portugueses. Os resultados revelam satisfação nos momentos marcantes no jogar e na competição, obtendo sucesso individual e coletivo num clima de classe satisfatório. Os momentos menos bem-vindos foram uma mistura de jogo, competição e fracasso. O aquecimento e um clima de classe negativo também foi relatado como não muito gratificante. Os momentos divertidos relatados foram a realização pessoal, o prazer e o compartilhamento. A valorização do professor revela interações pedagógicas, conhecimentos específicos e conduta pessoal. Os alunos gostam de aulas de EF. O planeamento do professor de EF deve maximizar as oportunidades de situações agradáveis por parte dos alunos a fim de melhorar a motivação deles.

Palavras-chave: Satisfação do aluno, Motivação do aluno, Avaliação, Momentos importantes.

Introduction

Critical incidents identified by Physical Education (PE) students is a growing issue in research^{1,2}. It is often supported by the growing concern with the physical activity level within the adolescents³ and its links with health promotion^{4,5}. As Tinning⁶ suggests, PE should be oriented to obesity prevention and positive and healthy habits. This follows the idea that adolescence is a critical period in the development of the self⁷ and so, PE can positively influence the idea of a healthy lifestyle^{8,9}.

The current research was made in the North of Portugal. PE in Portugal is a compulsory curricular subject, from the 5th year (more or less 10 years of age) until the last year in high school (around 17 years). The classes last between two and three hours, once or twice a week. One of the main purposes of PE, is to motivate students to develop a healthy lifestyle and to provide them with physical literacy in different domains¹⁰. However, Kirk¹¹ suggests that the PE programs have been ineffective in promoting lifelong physical activities.

Asking students about what were the most significant moments they lived in a PE class, and why, can improve knowledge and further strategies to influence and motivate them to participate and to be engaged within physical activity and exercise in the future. Motivation is one of the fundamental problems facing the PE teachers¹². Luke and Sinclair³ conducted a study

with 488 students, and concluded that the curriculum syllabus, teacher behavior, class environment, student self-perceptions, and physical facilities, were key aspects for their motivation in PE classes.

The purpose of this study is to describe what students' value most and why, in a PE class. The four research questions that guided the study were (a) identify the critical incidents by the pupils and subsequent justifications; (b) know what they like and dislike more in PE classes; (c) check what they value more and less in a PE teacher; (d) know the evaluation they do from a recent PE class and from PE in general.

Methods

This study uses a qualitative and descriptive approach of the critical incidents¹³ in a PE classroom. The Critical Incidents technique consists of a set of procedures for collecting direct observations. This technique requests that the participants first, point out a striking moment during the realization of the event under study (in this case the PE class) and, in the second moment they describe and explain why the moment referred was important¹⁴. The open-ended instrument allows the student to comment spontaneously the events he/she chooses about the PE class. Complementary questions were also conducted in order to better identify and categorize the Critical Incidents. Because the relation with the teacher is very important, the student's feelings about him were also questioned. Two questions with a Likert Scale helped to understand properly the satisfaction with the PE class they just had and the evaluation of the PE subject. The PE curriculum in Portugal recommends different physical experiences as, sports (collective and individuals), expressions like dancing, initiation to fighting sports and traditional games.

Participants

A total of 278 students (134 boys and 144 girls) with an average age of 14.7 years (2.6) from a total of six schools within the North part of Portugal participated in the study. When asked if they do some physical activity or organized sport outside PE classes, 54.4% students (n = 154) answered affirmatively.

The researcher also registered the gender of a total of 230 teachers (161 men and 69 women), with an average age of 48.2 (7.3), and 19.9 (8.2) years of experience. The kind of class that was taught was, mainly, collective sports (76.5%), like handball, volleyball, basketball and football.

Instrument

The instrument was an interview script. The process to build this script was done in two steps. First, organize the research team that was constituted by three professors and fourteen student/teachers in the second year of their master's degree in PE teaching. All the research team voluntarily participated in the study. These characteristics make them qualified researchers for the study¹³. The research team made regular meetings in order to build the interview script and the procedures required to use it. To test its suitability and train the interviewers, the investigators conducted interviews within the group itself, by making alternately participant and researcher tasks. The next step was to perform the interview in PE students, with the same characteristics of those who were participating in the study. Each researcher conducted three test interviews. This procedure was analyzed by the research group after hearing some interviews. Additionally, a discussion occurred about the content and suitability of the interview script, considering the different participants age groups, the interview technique, and the type of answers provided. An introductory phase consisted in explaining to the participants the objectives of the study, the way in which he/she was selected,

the voluntary character of his participation and the fact that his/her answers, although recorded, were going to be studied within a confidentiality agreement.

Development phase was divided into five parts (1) Participant characterization; (2) Critical incidents, with questions such as: what was more fun in the lesson? (3) Justification, with questions such as: why did you choose the moment you liked the most? (4) PE Teacher, with questions such as: what you like most and less in a PE teacher, can you give an example? (5) Students were asked to classify the lesson on a 5-point Likert-type scale (1- Didn't like, to 5- I like it a lot), and the PE subject with the same scale.

Data Collection

Permission of the schools and the PE teachers involved was obtained prior to the study conduct. The schools chosen are those that have a partnership agreement with the university that conducts the study. Data collection was performed in the 2nd (of three) academic period, between February and April. The participant's selection was carried out through a systematic random sampling system, in an organized form of a population (class) with a random order after a lottery extraction¹⁵. The students and the parents were asked to give the consent to participate in the research. The interviews were performed shortly after the EF class ended up and were recorded for later transcription with the greatest fidelity possible. The students required about eight minutes to express their feelings and answer all the questions.

Results

The data were analyzed using pre-established categories, generated from the interview questions¹⁶. The pre-planned categories were checked, convening their relationship with the conceptual framework around which the project was designed. To enhance validity and reduce bias, the data was analyzed firstly by three researchers which discussed and proposed a categorization, and afterwards, in a final meeting, with all the research team, where all the doubts were discussed until a consensus. Critical incidents data were divided into thoughts and perceptions, and the frequency of thoughts and perceptions within each category and subcategory was calculated¹⁷.

The presentation of the results was similar to that provided by O'Sullivan e Tsangaridou¹⁸. 278 incidents were coded and the perceptions about the moments of PE class. The results appearance was merged (critical and justification) to help comprehension.

Critical issues

Among the critical issues two dimensions were categorized from the data (Table 1).

Table 1. Indicators of critical incidents and their characteristics in frequency and percentage

Dimensions	Categories	Subcategories	F	%
Striking Moments	Satisfaction	Play/compete	83	29,9
		Success	80	28,8
		Class Climate	64	23
	Less welcome	Play/compete/failure	76	27,3
		Warm up	56	20,1
		Anything	43	15,5
Fun moments	Realization	Class Climate	33	11,9
		Realization	80	28,8
		Pleasure	71	25,5
		Sharing	43	15,5

Source: The authors

The Striking moments report what happened in a PE class, that was more relevant to the

students. They were divided in Satisfaction and Less Welcome.

Striking moments: satisfaction

Most students highlighted as positive, play/compete, succeed in the tasks that the teacher requested and the class positive climate. The play/compete consists in the practice of several sports, with football being the “class most fun”. In the same sense, “play with several others and compete, especially in activities when we were not able to win or achieve success, and now we're starting to win” was also mentioned. “Socialize with colleagues and work together to win” is also relevant for students, both through more formal ways of competition and other ways, in which there is a direct contact with colleagues. An additional example as a positive striking moment, was when they were able to succeed a task that initially they thought as impossible, such as “have done the full twist in gymnastics”, a “back score in basketball”, or “perform a pyramid in gymnastics”. Students also pointed out as positive, moments when they were “having fun playing”, or when they were “interacting with each other”, as for example, “helping others to learn or do new things”. The importance of socializing with colleagues, was justified in “helping to achieve the most difficult figures” and “being with colleagues to play together”.

The students highlighted being and having fun with colleagues, the satisfaction with the PE teacher and the practice of a team sport, as justifications for the striking moments.

They also emphasized the class climate, the success in the tasks and the pleasure of playing/competing. Most students “enjoy outdoor classes”, because in other classes “we are looking to the board” and in PE they can “be relaxed”, “learn and experience new things”. To play Football and to interact with colleagues were also referenced as activities they appreciate.

Striking moments: less welcome

The global frequency of the less welcome moments was lower, when compared to the positive moments. However, as an example, the students highlight the initial warmup as “something really boring”, because it's something that they “don't like doing”, even though they considered it as “important”. One of the reasons why they don't like the initial warmup, was because the exercise was always the same and boring, without any objectives or competition, such as “running at the beginning of the class around the field”. The “strength workout” is also an example of an exercise less appreciated by students.

When students feel that they do not have success conducting an exercise or task, there is an increase in the lack of satisfaction. They mentioned examples such as “I don't like, and I don't know how to play” or “I'm too small and I have fewer opportunities to score”, and also “my collages are very competitive, and they do not pass me the ball”.

Other less welcomed moments that students highlighted during a PE class were: “when we are upset doing exercises”, “the team does not play well together” and “some colleagues perform better, and then they think they are the greatest”. On the other hand, students also recognized that they were “distracted” and sometimes “when the teacher is explaining the exercises, we don't pay attention”. Interviewees also mentioned their “lack of will”, especially related to some sports (athletics is less welcome because the similarity with the warmup and the running exercise).

Although little was mentioned, the teacher conduct is cited negatively, more particularly: “screaming”; “mumble with us” and “when he/she puts some students of the class”. Some students (45) reported as “nothing special”, when asked for a moment less appreciated.

Fun Moments

Most students highlighted as fun moments the success, the pleasure, the class climate and the relationship with the teachers. Their perceived success refers to situations of personal

achievement, as when they reach their goals for an exercise, or played a role that caused them pride, and also when they are able to play in harmony with other colleagues: “When I made 3 points in basketball” or “when we were choosing the captain and vice-captain for the inter-class competition, I was selected the vice-captain”. “When my team made a nice move and we scored”. Other moments of pleasure were “everyone's collaboration to try to score”, “enjoyment when doing activities”, “that's when my class was playing all together” and when they were playing “in group and making the figures in Gymnastics”.

PE Teacher

The Table 2 evidences what students appreciate more and less in a PE teacher. Students appreciate the teacher “ability to teach so many things, and to be able to solve a situation”. They also mentioned the importance of a teacher “being able to exemplify an exercise”, and its “patience for teaching”. The personal conduct was an important issue in the “way to captivate students”. Students appreciate when teachers are “available”, “when they are as friends” and when they “take care of us”. The PE teacher “is different from other teachers, because he/she is more friendly, funny” and has the “desire to be with us”, which makes it “easy to be with the PE teachers”. About being exigent, most students prefer a teacher who “doesn't give a lot of freedom”. They value teachers that are able to “be understanding but, at the same time, also rigorous”, “when something bad occurs, a teacher should reprimand, but when we are doing thing well, he/she should say congratulations” and that “makes us give our best to achieve better results”.

Table 2. PE teacher appreciation by the students

Dimensions	Categories	Subcategories	F	%
Appreciate teacher	Pedagogic	Interaction	64	23
		Specific knowledge	58	20,9
		Demanding	15	5,4
	Personal conduct	Nice/able to help/fun	83	29,9
Less appreciate teacher	Pedagogic	Authoritative/ Speak laud	57	20,5
		Discourages	36	12,9
	Personal conduct	Arrogant/unfriendly	29	10,4
		Apart from students/unfair	29	10,4

Source: The authors

What is less appreciated in a PE teacher is when he/she is authoritative and speaks laud when teaching “because as much as the student's perform wrong, there are ways to talk”. Other negative points mentioned were the lack of interest manifested “when we're told to do something without explanation” and teachers' ability to establish appropriate objectives “don't even know our capabilities”. Students also mentioned that some teachers as, “not nice”, describing them as “always criticizing and admonish us, because that discourages”. Other examples of this were “when he/she diminishes us in front of everybody” or “when they always chose their favorite students”.

Class evaluation

Students ($N = 278$) were also asked to classify a PE class. The scale was between 1 (didn't like) and 5 (like a lot). The results mean 4,26 (0,7) situates the appreciation as positive. We also tried to observe if gender was a distinction variable in this appreciation. Males ($M=4,4$) score significantly higher ($p = ,016$) than females ($M=4,2$). We were not able to find differences when considering the teacher gender, age group or between the students that play organized sports or not.

PE evaluation

Considering the PE discipline, the students classified it as $M=4,47$ (0,8). As in the class evaluation, we found statistical differences from boys ($M=4,48$) and girls ($M=4,3$) ($p = ,000$). Contrarily from class evaluation, we found differences from the students that play organized sport in clubs that are in regular championships ($M=4,58$) from others who don't have these practices outside PE classes ($M=4,34$) ($p= ,011$).

Discussion

The results reveal that the pupils achieve satisfaction from playing, having success and when do an activity together with the colleagues. This was also true when they reported the fun moments. The link between success, fun moments, and positive striking moments is evident, as well as the class climate, and being able to play well with others.

As noticed, the importance of the increase of games situations can have the potential to promote and encourage engagement in physical activity¹. This situation can potentially trigger positives outcomes for students. If the activities are inherently pleasurable and intrinsically satisfying¹⁹, students can have more motivation and positive attitudes in PE.

Playing team sports is the activity students have done more in the classes observed (76,5%), probably because the PE teachers' biographies are strong attached to these sports²⁰. Even if the curricular goals in Portugal prescribe a larger number of physical experiences in PE, the findings in this study reveal a strong team sports predominance¹⁰.

The class climate^{12,21,22} is an essential point to students, and may nurture in students intrinsic motivation to be physically active in future^{23,24}. However, teachers should better understand the importance of motivational positive climate, how to stimulate students perceived physical competence, and also their intrinsic motivation, and pleasure in the school physical education setting²⁵.

Playing, and having success when competing were the most satisfactory moments. On the other hand, playing, competing and failing were the most quoted in the less welcome moments. This points to the fact that PE teachers should provide appropriate competitive situations, that allow the students to experience positive outcomes²⁶. About this issue, some authors alert, to the excessive importance to competition in PE²⁷, specially when the link between success and winning is highly valued by students and teachers.

The increase of physical fitness levels should also be an aim in PE classes^{28,29}. However, a lot of students don't express good feelings about running in PE classes despite considering it important. It is a challenge to the PE teacher to use pedagogic strategies to promote perceived physical competences and enjoyment with physical activity⁹. Indeed, task goal orientation, perceived competence and learning climates are the strongest predictors of intrinsic motivation found by Ferrer-Caja and Weiss³⁰. PE teachers should use different pedagogical strategies, considering warmup or strength exercises, to promote a better understanding of its importance. Promoting autonomy, supportive climates³¹ with health emphasis, associated with perceived competence, can lead to higher levels of satisfaction and commitment to physical activity, outside PE classes.

The relationship between students and PE teacher, seems to play a fundamental role in the connection between the PE classes and subsequent motivation²¹. In this study, the PE teacher personal conduct was the most quoted example to evaluate them positively. This was in accordance with the results of a research from Resende et al.³², with 3156 students, about what is a good PE teacher. The findings revealed that "commitment" was the behavior most valued for students, regardless age or gender. This commitment is expressed in autonomy support and positive involvement³³ which suggest the PE teachers and their learning process,

should consider this as an important personal role for the PE profession. The specific sports knowledge and pedagogical knowledge was also valued by student's, which appreciate the abilities they can achieve with them in the PE classes³⁴.

As in other researches^{4,7} this study findings confirm that males are more enthusiastic with PE than females. Those who are physically active outside school, in organized sport or others, like fitness academies, perceive PE classes more favorably⁴.

The general positive attitude to PE is also suggested from other studies^{4,35}. Even if the lack of the subject status^{36,29} is reflected in the student attitude trough PE, specially between girls³⁷, though attitude to PE is a strongest predictor of physical activity in the adulthood³⁸.

Conclusions

The aim of this study was to find what the student's value most and why in a PE class. The dimension striking moments suggest that the students get more satisfaction by playing and compete, getting individually and collective success in a satisfactory class climate. On the other hand, the less welcome moments are a mixture of playing, competing and failure. The warmup and negative class climate were also reported as not very gratifying. The fun moments considered were linked with realization, pleasure and sharing, which leaves to think in the importance in promoting this kind of moments to motivate the students.

These results emphasize the importance that the PE teacher should have in planning classes with huge percentage of collective games that promote success for all and in good class climate. The warmup and strength workout were examples of less enjoyable moments. The suggestion to improve satisfaction can be, for the first issue, plan game situations that can satisfy both, warm up through a funny way. They were also reported levels of dissatisfaction due to unsuccessful. Having pedagogical strategies like distinct levels of performance in the same class and task that promote success could help to minimize the student's dissatisfaction. The PE teacher also must be aware that some students don't appreciate competitions so, other forms of participation should be considered, for example, the ones suggested in the Sport Education Model proposed by Siedentop³⁹.

The teacher commitment to help students learn was meaningful for students when they were asked about the PE teacher. This is important because this is a feature of individual personality that should be take serially by the PE. Overall, the students have a good appreciation about the PE class.

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